09/486334

514 Rec'd PCT/PTO 2 2 FEB 2000

SEQUENCE LISTING

<110>   RHONE-POULENC AGRO
<120>   Method for increasing the content of cysteine, methionine
         and glutathione in plants, and plants obtained
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<150>   FR9816163
<151>   1998-12-17

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<170>   PatentIn Ver. 2.1

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aat ttc ttt cga ccc ggt ttc tct gta aac cgg aag att cac cac acc   150
Asn Phe Phe Arg Pro Gly Phe Ser Val Asn Arg Lys Ile His His Thr
 25   30   35   40

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Gln Ile Glu Asp Asp Asp Asp Val Trp Ile Lys Met Leu Glu Glu Ala
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aaa tcc gat gtt aaa caa gaa ccc att tta tca aac tac tac tac gct   246
Lys Ser Asp Val Lys Gln Glu Pro Ile Leu Ser Asn Tyr Tyr Tyr Ala
             60   65   70

tcg atc aca tct cat cga tct tta gag tct gct tta gct cac atc ctc   294
Ser Ile Thr Ser His Arg Ser Leu Glu Ser Ala Leu Ala His Ile Leu
         75   80   85

tcc gta aag ctc agc aat tta aac cta cca agc aac aca ctc ttc gaa   342
Ser Val Lys Leu Ser Asn Leu Asn Leu Pro Ser Asn Thr Leu Phe Glu
         90   95   100

ctg ttc ata agc gtt tta gaa gaa agc cct gag atc atc gaa tcc acg   390
Leu Phe Ile Ser Val Leu Glu Glu Ser Pro Glu Ile Ile Glu Ser Thr
105   110   115   120

aag caa gat ctt ata gca gtc aaa gaa aga gac cca gct tgt ata agc   438
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             125   130   135

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cat cga ata gct cat acc ctc tgg aaa cag aac aga aaa atc gta gct    534
His Arg Ile Ala His Thr Leu Trp Lys Gln Asn Arg Lys Ile Val Ala
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tta ttg atc caa aac aga gta tca gaa tct ttc gcc gtc gat att cat    582
Leu Leu Ile Gln Asn Arg Val Ser Glu Ser Phe Ala Val Asp Ile His
        170             175             180

ccc gga gcg aag atc gga aaa ggg att ctt tta gac cat gcg acg ggc    630
Pro Gly Ala Lys Ile Gly Lys Gly Ile Leu Leu Asp His Ala Thr Gly
185             190             195             200

gtg gtg atc gga gag acg gcg gtg gtt gga gac aat gtt tcg att cta    678
Val Val Ile Gly Glu Thr Ala Val Val Gly Asp Asn Val Ser Ile Leu
            205             210             215

cac gga gtg acc ttg gga gga aca ggg aaa cag agt ggt gat cgg cat    726
His Gly Val Thr Leu Gly Gly Thr Gly Lys Gln Ser Gly Asp Arg His
            220             225             230

ccg aag att ggt gat ggt gtg ttg att gga gct ggg agt tgt ata ttg    774
Pro Lys Ile Gly Asp Gly Val Leu Ile Gly Ala Gly Ser Cys Ile Leu
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ggg aat ata aca atc ggt gag gga gct aag att gga tca ggg tcg gtg    822
Gly Asn Ile Thr Ile Gly Glu Gly Ala Lys Ile Gly Ser Gly Ser Val
250             255             260

gtg gtt aag gat gtg ccg gcg cgt acg acg gcg gtt gca aat ccg gcg    870
Val Val Lys Asp Val Pro Ala Arg Thr Thr Ala Val Gly Asn Pro Ala
265             270             275             280

agg ttg att ggt ggg aaa gag aat ccg aga aac cat gat aag att cct    918
Arg Leu Ile Gly Gly Lys Glu Asn Pro Arg Lys His Asp Lys Ile Pro
            285             290             295

tgt ctg act atg gac cag aca tcg tat tta acc gag tgg tct gat tat    966
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His Gln Ser Pro Ser Lys Glu Lys Leu Ser Ser Val Thr Gln Ser Asp
        10              15              20
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gaa gct gcc gga tta tgg aca cag atc aag gcg gaa gct cgc cgt gat    198
Glu Ala Ala Gly Leu Trp Thr Gln Ile Lys Ala Glu Ala Arg Arg Asp
                    45                  50                  55

gct gag gcg gag cca gct tta gct agc tat cta tat tcg acg att ctt    246
Ala Glu Ala Glu Pro Ala Leu Ala Ser Tyr Leu Tyr Ser Thr Ile Leu
                60                  65                  70

tct cat tcg tct ctt gaa cga tct atc tcg ttt cat cta gga aac aag    294
Ser His Ser Ser Leu Glu Arg Ser Ile Ser Phe His Leu Gly Asn Lys
                75                  80                  85

ctt tgt tcc tca acg ctt tta tcc aca ctt tta tac gat ctg ttc tta    342
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        90                  95                  100

aac act ttt tcc tcc gat cct tct ctt cgt aac gcc acc gtc gca gat    390
Asn Thr Phe Ser Ser Asp Pro Ser Leu Arg Asn Ala Thr Val Ala Asp
105                 110                 115                 120

cta cgc gct gct cgt gtt cgt gat cct gct tgt atc tcg ttc tct cat    438
Leu Arg Ala Ala Arg Val Arg Asp Pro Ala Cys Ile Ser Phe Ser His
                    125                 130                 135

tgt ctc ctc aat tac aaa ggc ttt tta gct att cag gcg tat cgt gta    486
Cys Leu Leu Asn Tyr Lys Gly Phe Leu Ala Ile Gln Ala His Arg Val
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tca cac aag cta tgg aca caa tca cgg aag cca tta gca tta gct cta    534
Ser His Lys Leu Trp Thr Gln Ser Arg Lys Pro Leu Ala Leu Ala Leu
                155                 160                 165

cac tca aga atc tcc gat gta ttc gct gtt gat atc cat cca gca gcg    582
His Ser Arg Ile Ser Asp Val Phe Ala Val Asp Ile His Pro Ala Ala
                170                 175                 180

aag atc gga aaa ggg ata ctt cta gac cac gca acc gga gtt gta gtc    630
Lys Ile Gly Lys Gly Ile Leu Leu Asp His Ala Thr Gly Val Val Val
185                 190                 195                 200

gga gaa aca gcg gtg att ggg aac aat gtt tca atc ctt cac cat gtg    678
Gly Glu Thr Ala Val Ile Gly Asn Asn Val Ser Ile Leu His His Val
                    205                 210                 215

aca cta ggt gga aca ggt aaa gct tgt gga gat aga cat ccg aag atc    726
Thr Leu Gly Gly Thr Gly Lys Ala Cys Gly Asp Arg His Pro Lys Ile
                220                 225                 230

ggt gac ggt tgt ttg att gga gct gga gcg act att ctt gga aat gtg    774
Gly Asp Gly Cys Leu Ile Gly Ala Gly Ala Thr Ile Leu Gly Asn Val
                235                 240                 245

aag att ggt gca ggt gct aaa gta gga gct ggt tct gtt gtg ctg att    822
Lys Ile Gly Ala Gly Ala Lys Val Gly Ala Gly Ser Val Val Leu Ile
                250                 255                 260

gac gtg cct tgt cga ggt act gcg gtt ggg aat ccg gcg aga ctt gtc    870
Asp Val Pro Cys Arg Gly Thr Ala Val Gly Asn Pro Ala Arg Leu Val
265                 270                 275                 280
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tcg atg gat cat act tca ttc atc tcg gaa tgg tca gat tac atc ata    966
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Arg Thr Gly Lys Pro Gln Ile Ser Pro Arg Asp Ser Ser Lys His His
        10                  15                  20

gac gat gaa tct ggc ttt cgt tac atg aac tac ttc cgt tat cct gat   150
Asp Asp Glu Ser Gly Phe Arg Tyr Met Asn Tyr Phe Arg Tyr Pro Asp
25                  30                  35                  40

cga tct tcc ttc aat gga acc cag acc aaa acc ctc cat act cgt cct   198
Arg Ser Ser Phe Asn Gly Thr Gln Thr Lys Thr Leu His Thr Arg Pro
                45                  50                  55

ttg ctt gaa gat ctc gat cgc gac gct gaa gtc gat gat gtt tgg gcc   246
Leu Leu Glu Asp Leu Asp Arg Asp Ala Glu Val Asp Asp Val Trp Ala
                60                  65                  70

aaa atc cga gaa gag gct aaa tct gat atc gcc aaa gaa cct att gtt   294
Lys Ile Arg Glu Glu Ala Lys Ser Asp Ile Ala Lys Glu Pro Ile Val
            75                  80                  85

tcc gct tat tat cac gct tcg att gtt tct cag cgt tcg ttg gaa gct   342
Ser Ala Tyr Tyr His Ala Ser Ile Val Ser Gln Arg Ser Leu Glu Ala
            90                  95                  100

gcg ttg gcg aat act tta tct gtt aaa ctc agc aat ttg aat ctt cca   390
Ala Leu Ala Asn Thr Leu Ser Val Lys Leu Ser Asn Leu Asn Leu Pro
105                 110                 115                 120

agc aac acg ctt ttc gat ttg ttc tct ggt gtt ctt caa gga aac cca   438
Ser Asn Thr Leu Phe Asp Leu Phe Ser Gly Val Leu Gln Gly Asn Pro
                125                 130                 135

gat att gtt gaa tct gtc aag cta gat ctt tta gct gtt aag gag aga   486
Asp Ile Val Glu Ser Val Lys Leu Asp Leu Leu Ala Val Lys Glu Arg
                140                 145                 150

gat cct gct tgt ata agc tac gtt cat tgt ttc ctt cac ttt aaa ggc   534
Asp Pro Ala Cys Ile Ser Tyr Val His Cys Phe Leu His Phe Lys Gly
            155                 160                 165
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ttc ctc gct tgt caa gcg cat cgt att gct cat gag ctt tgg act cag    582
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    170             175             180

gac aga aaa atc cta gct ttg ttg atc cag aac aga gtc tct gaa gcc    630
Asp Arg Lys Ile Leu Ala Leu Leu Ile Gln Asn Arg Val Ser Glu Ala
    185             190             195             200

ttc gct gtt gat ttc cac cct gga gct aaa atc ggt acc ggg att ttg    678
Phe Ala Val Asp Phe His Pro Gly Ala Lys Ile Gly Thr Gly Ile Leu
                    205             210             215

cta gac cat gct acg gct att gtg atc ggt gag acg gcg gtt gtg ggg    726
Leu Asp His Ala Thr Ala Ile Val Ile Gly Glu Thr Ala Val Val Gly
                220             225             230

aac aat gtt tcg att ctc cat aac gtt acg ctt gga gga acg ggg aaa    774
Asn Asn Val Ser Ile Leu His Asn Val Thr Leu Gly Gly Thr Gly Lys
                235             240             245

cag tgt gga gat agg cac ccg aag att ggc gat ggg gtt ttg att gga    822
Gln Cys Gly Asp Arg His Pro Lys Ile Gly Asp Gly Val Leu Ile Gly
    250             255             260

gct ggg act tgt att ttg ggg aat atc acg att ggt gaa gga gct aag    870
Ala Gly Thr Cys Ile Leu Gly Asn Ile Thr Ile Gly Glu Gly Ala Lys
    265             270             275             280

att ggt gcg ggg tcg gtg gtg ttg aaa gac gtg ccg ccg cgt acg acg    918
Ile Gly Ala Gly Ser Val Val Leu Lys Asp Val Pro Pro Arg Thr Thr
                285             290             295

gct gtt gga aat ccg gcg agg ttg ctt ggc ggt aaa gat aat ccg aaa    966
Ala Val Gly Asn Pro Ala Arg Leu Leu Gly Gly Lys Asp Asn Pro Lys
                300             305             310

acg cat gac aag att cct ggt ttg act atg gac cag acg tcg cat ata   1014
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His Phe Thr Met Ser Leu Tyr Met Leu Arg Ser Ser Ser Pro His Ile
    10              15              20
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aat cat cac tct ttc ctt ctt cct tct ttt gtt tcc tcc aaa ttc aaa    150
Asn His His Ser Phe Leu Leu Pro Ser Phe Val Ser Ser Lys Phe Lys
 25                  30                  35                  40

cac cat act tta tct cct cct cct tct cct cct cct cct cct cct atg    198
His His Thr Leu Ser Pro Pro Pro Ser Pro Pro Pro Pro Pro Pro Met
                     45                  50                  55

gct gcg tgc atc gac acc tgc cgc act ggt aaa ccc cag att tct cct    246
Ala Ala Cys Ile Asp Thr Cys Arg Thr Gly Lys Pro Gln Ile Ser Pro
                 60                  65                  70

cgc gat tct tct aaa cac cac gac gat gaa tct ggc ttt cgt tac atg    294
Arg Asp Ser Ser Lys His His Asp Asp Glu Ser Gly Phe Arg Tyr Met
             75                  80                  85

aac tac ttc cgt tat cct gat cga tct tcc ttc aat gga acc cag acc    342
Asn Tyr Phe Arg Tyr Pro Asp Arg Ser Ser Phe Asn Gly Thr Gln Thr
         90                  95                  100

aaa acc ctc cat act cgt cct ttg ctt gaa gat ctc gat cgc gac gct    390
Lys Thr Leu His Thr Arg Pro Leu Leu Glu Asp Leu Asp Arg Asp Ala
105                  110                 115                 120

gaa gtc gat gat gtt tgg gcc aaa atc cga gaa gag gct aaa tct gat    438
Glu Val Asp Asp Val Trp Ala Lys Ile Arg Glu Glu Ala Lys Ser Asp
                     125                 130                 135

atc gcc aaa gaa cct att gtt tcc gct tat tat cac gct tcg att gtt    486
Ile Ala Lys Glu Pro Ile Val Ser Ala Tyr Tyr His Ala Ser Ile Val
                 140                 145                 150

tct cag cgt tcg ttg gaa gct gcg ttg gcg aat act tta tct gtt aaa    534
Ser Gln Arg Ser Leu Glu Ala Ala Leu Ala Asn Thr Leu Ser Val Lys
                 155                 160                 165

ctc agc aat ttg aat ctt cca agc aac acg ctt ttc gat ttg ttc tct    582
Leu Ser Asn Leu Asn Leu Pro Ser Asn Thr Leu Phe Asp Leu Phe Ser
             170                 175                 180

ggt gtt ctt caa gga aac cca gat att gtt gaa tct gtc aag cta gat    630
Gly Val Leu Gln Gly Asn Pro Asp Ile Val Glu Ser Val Lys Leu Asp
185                 190                 195                 200

ctt tta gct gtt aag gag aga gat cct gct tgt ata agc tac gtt cat    678
Leu Leu Ala Val Lys Glu Arg Asp Pro Ala Cys Ile Ser Tyr Val His
                 205                 210                 215

tgt ttc ctt cac ttt aaa ggc ttc ctc gct tgt caa gcg cat cgt att    726
Cys Phe Leu His Phe Lys Gly Phe Leu Ala Cys Gln Ala His Arg Ile
                 220                 225                 230

gct cat gag ctt tgg act cag gac aga aaa atc cta gct ttg ttg atc    774
Ala His Glu Leu Trp Thr Gln Asp Arg Lys Ile Leu Ala Leu Leu Ile
                 235                 240                 245

cag aac aga gtc tct gaa gcc ttc gct gtt gat ttc cac cct gga gct    822
Gln Asn Arg Val Ser Glu Ala Phe Ala Val Asp Phe His Pro Gly Ala
                 250                 255                 260

aaa atc ggt acc ggg att ttg cta gac cat gct acg gct att gtg atc    870
Lys Ile Gly Thr Gly Ile Leu Leu Asp His Ala Thr Ala Ile Val Ile
265                 270                 275                 280
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ggt gag acg gcg gtt gtg ggg aac aat gtt tcg att ctc cat aac gtt    913
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                285                 290                 295

acg ctt gga gga acg ggg aaa cag tgt gga gat agg cac ccg aag att    966
Thr Leu Gly Gly Thr Gly Lys Gln Cys Gly Asp Arg His Pro Lys Ile
                300                 305                 310

ggc gat ggg gtt ttg att gga gct ggg act tgt att ttg ggg aat atc   1014
Gly Asp Gly Val Leu Ile Gly Ala Gly Thr Cys Ile Leu Gly Asn Ile
                315                 320                 325

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345                 350                 355                 360

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ctc tct ttt gtc caa tca aaa aga gtt tgt gat tct tct tta tcg tct     96
Leu Ser Phe Val Gln Ser Lys Arg Val Cys Asp Ser Ser Leu Ser Ser
                20                  25                  30

cct tgg aga gat atg aat ggc gat gag ctt cct ttc gag agt ggt ttc    144
Pro Trp Arg Asp Met Asn Gly Asp Glu Leu Pro Phe Glu Ser Gly Phe
                35                  40                  45

gag gtt tac gct aag gga act cat aag tca gag ttt gac tcg aat ttg    192
Glu Val Tyr Ala Lys Gly Thr His Lys Ser Glu Phe Asp Ser Asn Leu
                50                  55                  60

ctt gat cct cgt tct gat cct att tgg gat gct ata aga gaa gaa gct    240
Leu Asp Pro Arg Ser Asp Pro Ile Trp Asp Ala Ile Arg Glu Glu Ala
65                  70                  75                  80
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aaa ctt gag gca gag aaa gag cct att ttg agt agc ttc ttg tat gct    288
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            85              90              95

ggt atc tta gca cat gat tgt tta gag caa gct tta ggg ttt gtt cta    336
Gly Ile Leu Ala His Asp Cys Leu Glu Gln Ala Leu Gly Phe Val Leu
            100             105             110

gcc aac cgt ctc caa aac cca acc ttg ttg gca aca caa ctc ttg gat    384
Ala Asn Arg Leu Gln Asn Pro Thr Leu Leu Ala Thr Gln Leu Leu Asp
            115             120             125

ata ttt tat ggt gtt atg atg cat gac aaa ggt att cag agt tcg att    432
Ile Phe Tyr Gly Val Met Met His Asp Lys Gly Ile Gln Ser Ser Ile
            130             135             140

cgc cat gat ctc cag gca ttt aaa gat cgt gat cct gct tgt ctg tcg    480
Arg His Asp Leu Gln Ala Phe Lys Asp Arg Asp Pro Ala Cys Leu Ser
145             150             155             160

tat agt tct gct att tta cat ctg aag ggt tat cat gcg tta caa gca    528
Tyr Ser Ser Ala Ile Leu His Leu Lys Gly Tyr His Ala Leu Gln Ala
            165             170             175

tat agg gtt gcg cat aaa ctg tgg aat gaa ggg agg aaa cta tta gct    576
Tyr Arg Val Ala His Lys Leu Trp Asn Glu Gly Arg Lys Leu Leu Ala
            180             185             190

ctt gca ttg caa agc cga ata agc gag gtt ttt ggt att gac ata cat    624
Leu Ala Leu Gln Ser Arg Ile Ser Glu Val Phe Gly Ile Asp Ile His
            195             200             205

cca gcg gca aga att ggg gag gga ata ttg ttg gat cat gga act gga    672
Pro Ala Ala Arg Ile Gly Glu Gly Ile Leu Leu Asp His Gly Thr Gly
210             215             220

gtg gtc att ggt gag acc gct gtg ata ggc aac ggt gtc tcg atc tta    720
Val Val Ile Gly Glu Thr Ala Val Ile Gly Asn Gly Val Ser Ile Leu
225             230             235             240

cat ggt gtg act tta gga gga acc gga aag gaa act ggc gat cgc cac    768
His Gly Val Thr Leu Gly Gly Thr Gly Lys Glu Thr Gly Asp Arg His
            245             250             255

cca aag ata ggt gaa ggt gca ttg ctt gga gct tgt gtg act ata ctt    816
Pro Lys Ile Gly Glu Gly Ala Leu Leu Gly Ala Cys Val Thr Ile Leu
            260             265             270

ggt aac ata agc ata ggt gct gga gca atg gta gct gca ggt tca ctt    864
Gly Asn Ile Ser Ile Gly Ala Gly Ala Met Val Ala Ala Gly Ser Leu
            275             280             285

gtg tta aaa gac gtt cct tcg cat agt gtg gtg gct gga aat cct gca    912
Val Leu Lys Asp Val Pro Ser His Ser Val Val Ala Gly Asn Pro Ala
            290             295             300

aaa ctg atc agg gtc atg gaa gag caa gac ccg tct cta gca atg aaa    960
Lys Leu Ile Arg Val Met Glu Glu Gln Asp Pro Ser Leu Ala Met Lys
305             310             315             320

cac gat gct act aaa gag ttc ttt cga cat gta gct gat ggt tac aaa    1008
His Asp Ala Thr Lys Glu Phe Phe Arg His Val Ala Asp Gly Tyr Lys
            325             330             335
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Gly His Thr Asn Ser Thr Ser
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gat gga gag acc ggt gac gag ttt cct ttc gag agg att ttc ccg gtt    144
Asp Gly Glu Thr Gly Asp Glu Phe Pro Phe Glu Arg Ile Phe Pro Val
            35                  40                  45

tac gct aga gga acc ctt aat ccc gtg gcc gac ccg gtt ttg ctg gat    192
Tyr Ala Arg Gly Thr Leu Asn Pro Val Ala Asp Pro Val Leu Leu Asp
        50                  55                  60

ttt acc aat tct agt tat gac cca att tgg gat tct ata aga gaa gaa    240
Phe Thr Asn Ser Ser Tyr Asp Pro Ile Trp Asp Ser Ile Arg Glu Glu
65                  70                  75                  80

gct aag ctt gag gca gaa gag gag ccg gtt ttg agt agc ttc ttg tat    288
Ala Lys Leu Glu Ala Glu Glu Glu Pro Val Leu Ser Ser Phe Leu Tyr
                85                  90                  95

gct agt atc ttg tcg cat gac tgt tta gag caa gca ttg agt ttt gtt    336
Ala Ser Ile Leu Ser His Asp Cys Leu Glu Gln Ala Leu Ser Phe Val
                100                 105                 110

cta gct aac cgt ctc caa aac cct acc ttg ttg gca act cag ctt atg    384
Leu Ala Asn Arg Leu Gln Asn Pro Thr Leu Leu Ala Thr Gln Leu Met
            115                 120                 125

gat ata ttt tgc aac gtt atg gta cat gac aga ggt att caa agc tcg    432
Asp Ile Phe Cys Asn Val Met Val His Asp Arg Gly Ile Gln Ser Ser
            130                 135                 140

att cgt ctt gat gtt cag gca ttc aaa gac aga gat cct gct tgt cta    480
Ile Arg Leu Asp Val Gln Ala Phe Lys Asp Arg Asp Pro Ala Cys Leu
145                 150                 155                 160

tcg tat agt tcg gct att tta cat ctg aag ggc tat ctt gca ctg cag    528
Ser Tyr Ser Ser Ala Ile Leu His Leu Lys Gly Tyr Leu Ala Leu Gln
                165                 170                 175
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gcg tat aga gta gca cat aag ttg tgg aag caa gga aga aaa cta tta    576
Ala Tyr Arg Val Ala His Lys Leu Trp Lys Gln Gly Arg Lys Leu Leu
            180             185             190

gca ttg gca ctg caa agc cga gta agc gag gta aga act gct gtg ata    624
Ala Leu Ala Leu Gln Ser Arg Val Ser Glu Val Arg Thr Ala Val Ile
            195             200             205

ggc gac cgt gtc tca att ttg cat ggt gtg aca tta gga gga act ggg    672
Gly Asp Arg Val Ser Ile Leu His Gly Val Thr Leu Gly Gly Thr Gly
        210             215             220

aaa gaa acc ggt gac cgc cat cca aat ata ggc gac ggt gct ctt ctt    720
Lys Glu Thr Gly Asp Arg His Pro Asn Ile Gly Asp Gly Ala Leu Leu
225             230             235             240

gga gca tgt gtg act ata ctt ggt aac att aag ata ggc gct gga gca    768
Gly Ala Cys Val Thr Ile Leu Gly Asn Ile Lys Ile Gly Ala Gly Ala
            245             250             255

atg gta gct gct ggt tcg ctt gtg tta aag gat gtt cct tcg cat agc    816
Met Val Ala Ala Gly Ser Leu Val Leu Lys Asp Val Pro Ser His Ser
            260             265             270

atg gtg gct gga aat cca gca aaa ctc atc ggg ttt gtt gat gag caa    864
Met Val Ala Gly Asn Pro Ala Lys Leu Ile Gly Phe Val Asp Glu Gln
            275             280             285

gat cca tct atg aca atg gag cat ggt gag tct tga                    900
Asp Pro Ser Met Thr Met Glu His Gly Glu Ser
290             295             300
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<210> 7
<211> 54
<212> DNA
<213> Artificial sequence

<220>
<223> Artificial sequence description:
      synthetic oligonucleotide

<400> 7
gagagacgat cctctttcca atcataaacc atggcaacat gcatagacac atgc   54

<210> 8
<211> 46
<212> DNA
<213> Artificial sequence

<220>
<223> Artificial sequence description:
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<210> 9
<211> 52
<212> DNA
<213> Artificial sequence

<220>

<223>   Artificial sequence description:
         synthetic oligonucleotide

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<212> DNA
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<223>   Artificial sequence description:
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<220>
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<210>    15
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 ttttctt                                                               67


<210>    17
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<220>
<223>    Artificial sequence description:
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